

CARRYING CASE OF A TOOL BOX ASSEMBLY

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates to a carrying case, more
5 particularly to a carrying case of a tool box assembly.

2. Description of the Related Art

A conventional tool box includes a housing having
an open side, a cover member connected pivotally to the
open side, and an anchoring member for retaining the
10 cover member at a position for closing the open side
of the housing.

Although various tools can be disposed in the housing,
managing of tools is inefficient in view of space
limitations in the housing.

15 SUMMARY OF THE INVENTION

Therefore, the main object of the present invention
is to provide a carrying case that permits efficient
managing of tools and that facilitate carrying of a large
number of tools.

20 Another object of the present invention is to provide
a tool box assembly that includes the carrying case.

According to one aspect of the present invention,
a carrying case comprises:

a housing having a top portion and opposite lateral
25 sides;

a carrying member disposed on the top portion of the
housing, the carrying member including a first carrying

body having a first pivot end connected pivotally to one of the lateral sides of the housing and a driving end opposite to the first pivot end, and a second carrying body having a second pivot end connected pivotally to the other one of the lateral sides of the housing and a driven end opposite to the second pivot end, the first carrying body having a first width measured between the first pivot end and the driving end and greater than a second width of the second carrying body measured between the second pivot end and the driven end, the first carrying body being provided with a handgrip thereon, the first and second carrying bodies being operable so as to move from a closed position, where the driving end of the first carrying body is adjacent to the driven end of the second carrying body, to an open position, where the driving end of the first carrying body is spaced apart from the driven end of the second carrying body; and

an anchoring unit provided on the top portion of the housing and the first and second carrying bodies for retaining releasably the first and second carrying bodies at the closed position.

According to another aspect of the present invention, a tool box assembly comprises:

a housing having a top portion, opposite lateral sides and a receiving space;

a tool box disposed in the receiving space of the

housing;

5 a carrying member disposed on the top portion of the housing, the carrying member including a first carrying body having a first pivot end connected pivotally to one of the lateral sides of the housing and a driving end opposite to the first pivot end, and a second carrying body having a second pivot end connected pivotally to the other one of the lateral sides of the housing and a driven end opposite to the second pivot end, the first
10 carrying body having a first width measured between the first pivot end and the driving end and greater than a second width of the second carrying body measured between the second pivot end and the driven end, the first carrying body being provided with a handgrip thereon, the first and second carrying bodies being
15 operable so as to move from a closed position, where the driving end of the first carrying body is adjacent to the driven end of the second carrying body, to an open position, where the driving end of the first carrying body is spaced apart from the driven end of the second carrying body; and
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an anchoring unit provided on the top portion of the housing and the first and second carrying bodies for retaining releasably the first and second carrying
25 bodies at the closed position.

BRIEF DESCRIPTION OF THE DRAWINGS

Other features and advantages of the present

invention will become apparent in the following detailed description of the preferred embodiment with reference to the accompanying drawings, of which:

Figure 1 is a partly exploded perspective view showing
5 the preferred embodiment of a tool box assembly with a carrying case according to the present invention;

Figure 2 is an assembled perspective view of the preferred embodiment;

Figure 3 is a schematic partly sectional view
10 illustrating first and second carrying bodies of a carrying member of the preferred embodiment at a closed position; and

Figure 4 is a schematic partly sectional view illustrating the first and second carrying bodies when
15 moved from the closed position to an open position.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to Figures 1 and 2, the preferred embodiment of a tool box assembly according to the present invention is shown to include a housing 11, a plurality of tool
20 boxes 12 (there are two tool boxes 12 in this embodiment), a carrying member 20, and an anchoring unit. The housing 11, the carrying member 20 and the anchoring unit constitute a carrying case of the tool box assembly.

In this embodiment, the housing 11 includes a bottom
25 wall 112, and opposite lateral walls 111 that extend from and that cooperate with the bottom wall 112 so as to confine a receiving space 110. The housing 11 has

an open front side 117 for access into the receiving space 110, and a top portion provided with a tray 113 that has a top surface formed with a receiving groove 115. Each of the tray 113 and the bottom wall 112 is
5 formed with a positioning hole 1132, 1121 that is disposed adjacent to the open front side 117. Each of the lateral walls 111 has an inner wall surface 1111 formed with a set of parallel elongate slide rails 114, as shown in Figures 1 and 3.

10 The tool boxes 12 are disposed in the receiving space 110 of the housing 11. In this embodiment, each tool box 12, which is adapted to receive a number of tools (not shown) in an orderly manner, is disposed removably in the receiving space 110 through the open front side
15 17, and has opposite engaging sides 121 disposed in sliding and removable engagement with corresponding ones of the slide rails 114 on the lateral walls 111, respectively.

With further reference to Figure 3, the carrying
20 member 20 is disposed on the top portion of the housing 11, and includes a first carrying body 21, and a second carrying body 22. The first carrying body 21 has a first pivot end 211 connected pivotally to one of the lateral walls 111 of the housing 11, and a driving end 212 opposite
25 to the first pivot end 211. The second carrying body 22 has a second pivot end 221 connected pivotally to the other one of the lateral walls 111 of the housing

11, and a driven end 222 opposite to the second pivot end 221. Preferably, the first carrying body 21 has a first width measured between the first pivot end 211 and the driving end 212 and greater than a second width of second carrying body 22 measured between the second pivot end 221 and the driven end 222. The first carrying body 21 has a top surface formed with a mounting recess 216, and is provided with a handgrip 217 that is mounted pivotally in the mounting recess 216. The first and second carrying bodies 21, 22 are operable so as to move from a closed position, where the driving end 212 of the first carrying body 21 is adjacent to the driven end 222 of the second carrying body 22, as shown in Figure 2, to an open position, where the driving end 212 of the first carrying body 21 is spaced apart from the driven end 222 of the second carrying body 22, as shown in Figure 1. The driving end 212 of the first carrying body 21 is formed with an engaging groove 214. The driven end 222 of the second carrying body 22 is formed with projecting blocks 224 that extend into and that engage the engaging groove 214 in the driving end 212 of the first carrying body 21 when the first and second carrying bodies 21, 22 are disposed at the closed position, as shown in Figure 3. In this embodiment, the receiving groove 115 in the tray 113 is covered by the carrying member 20 when the first and second carrying bodies 21, 22 are disposed at the closed position, as shown in Figure

3. In use, when the first carrying body 21 is pulled upwardly so as to move the first carrying body 21 from the closed position to the open position, the second carrying body 22 can be driven to move from the closed position to the open position due to the engagement between the carrying groove 214 and the projecting blocks 224, as shown in Figure 4.

The anchoring unit is provided on the top portion of the housing 11 and the first and second carrying bodies 21, 22 for retaining releasably the first and second carrying bodies 21, 22 at the closed position. In this embodiment, the anchoring unit includes a plurality of anchoring lugs 116 formed on the tray 113, and a plurality of anchoring hooks 213, 223 formed on the first and second carrying bodies 21, 22 and corresponding to the anchoring lugs 116. Each anchoring hook 213, 223 engages the corresponding one of the anchoring lugs 116 when the first and second carrying bodies 21, 22 are disposed at the closed position.

A positioning bolt 13 extends through the positioning hole 1132 in the tray 113 and through holes 120 in the tool boxes 12, and engages the positioning hole 1121 in the bottom wall 112 so as to position the tool boxes 12 in the receiving space 110, as shown in Figure 2.

To sum up, since the first width of the first carrying body 21 is greater than the second width of the second carrying body 22, the second carrying body 22 can be

easily driven by the first carrying body 21 to move from the closed position to the open position. Furthermore, the tool boxes 12 can be easily slid into and out of the receiving space 110. It is noted that, due to the
5 presence of the carrying member 20 with the handgrip 217, the carrying member 20 can provide a seating area when the first and second carrying bodies 21, 22 are disposed at the closed position, and the tool box assembly can be easily carried to a worksite.

10 While the present invention has been described in connection with what is considered the most practical and preferred embodiment, it is understood that this invention is not limited to the disclosed embodiment but is intended to cover various arrangements included
15 within the spirit and scope of the broadest interpretation so as to encompass all such modifications and equivalent arrangements.